2PA1015GR,126 Datasheet

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DiGi Electronics Part Number	2PA1015GR,126-DG
Manufacturer	NXP USA Inc.
Manufacturer Product Number	2PA1015GR,126
Description	TRANS PNP 50V 0.15A TO92-3
Detailed Description	Bipolar (BJT) Transistor PNP 50 V 150 mA 80MHz 500 mW Through Hole TO-92-3

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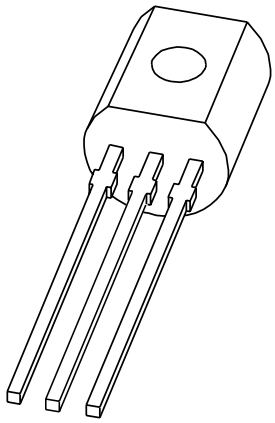
Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2PA1015GR,126	NXP USA Inc.
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	150 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
50 V	300mV @ 10mA, 100mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	200 @ 2mA, 6V
Power - Max:	Frequency - Transition:
500 mW	80MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA) Formed Leads	TO-92-3
Base Product Number:	
2PA10	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.21.0095	

DATA SHEET



2PA1015
PNP general purpose transistor

Product specification
Supersedes data of 1999 Apr 08

2004 Oct 11

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PNP general purpose transistor 2PA1015

FEATURES

- Low current (max. 150 mA)
- Low voltage (max. 50 V).

APPLICATIONS

- General purpose switching and amplification.

DESCRIPTION

PNP transistor in a plastic TO-92; SOT54 package.
NPN complement: 2PC1815.

PINNING

PIN	DESCRIPTION
1	base
2	collector
3	emitter

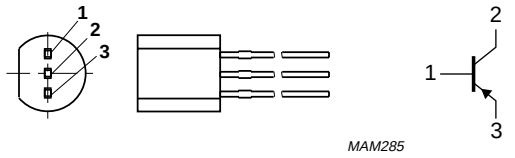


Fig.1 Simplified outline (TO-92; SOT54) and symbol.

ORDERING INFORMATION

TYPE NUMBER	PACKAGE		
	NAME	DESCRIPTION	VERSION
2PA1015Y	SC-43A	plastic single-ended leaded (through hole) package; 3 leads	SOT54
2PA1015GR			

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{CBO}	collector-base voltage	open emitter	–	–50	V
V_{CEO}	collector-emitter voltage	open base	–	–50	V
V_{EBO}	emitter-base voltage	open collector	–	–5	V
I_C	collector current (DC)		–	–150	mA
I_{CM}	peak collector current		–	–200	mA
I_{BM}	peak base current		–	–200	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25$ °C; note 1	–	500	mW
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	ambient temperature		–65	+150	°C

Note

1. Transistor mounted on an FR4 printed-circuit board.

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th(j-a)}$	thermal resistance from junction to ambient	note 1	250	K/W

Note

1. Transistor mounted on an FR4 printed-circuit board.

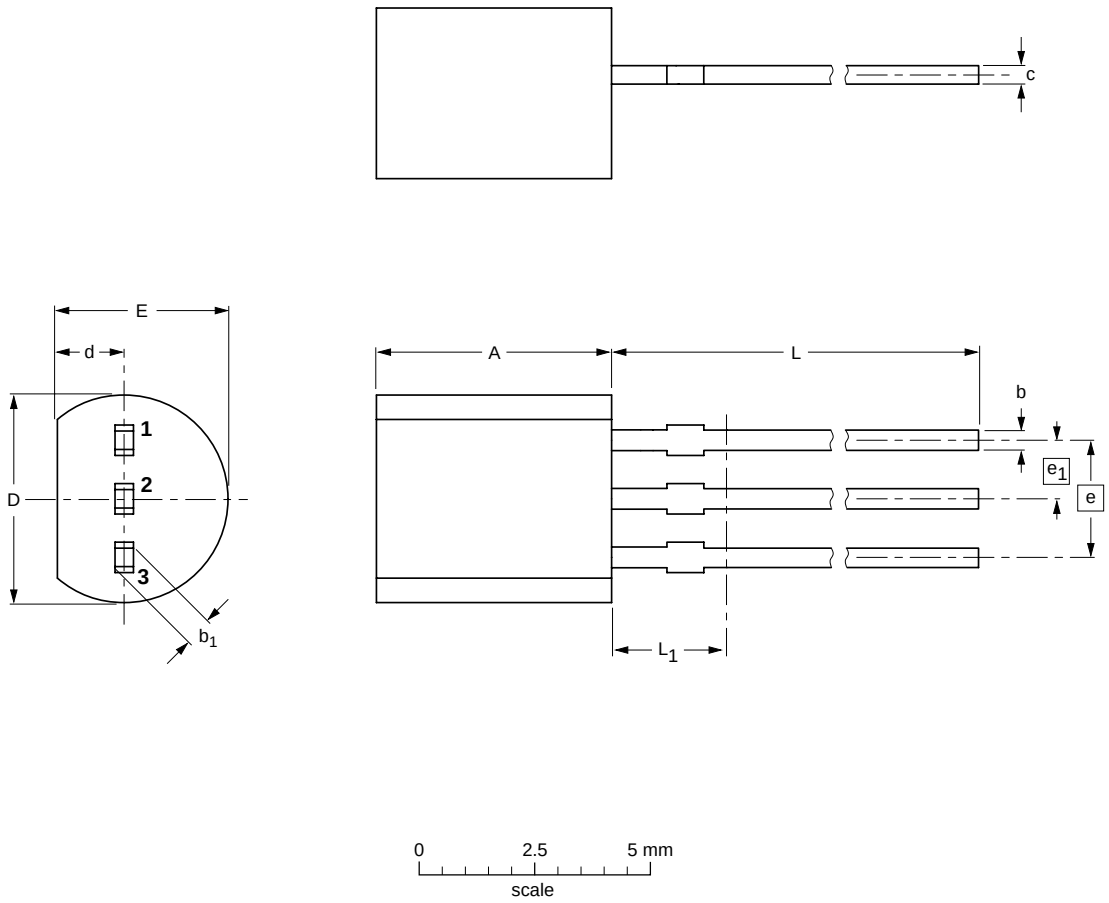
CHARACTERISTICS

T_j = 25 °C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
I_{CBO}	collector-base cut-off current	V_{CB} = –50 V; I_E = 0 A	–	–	–100	nA
I_{EBO}	emitter-base cut-off current	V_{EB} = –5 V; I_C = 0 A	–	–	–100	nA
h_{FE}	DC current gain	V_{CE} = –6 V; I_C = –2 mA				
	2PA1015Y		120	–	240	
	2PA1015GR		200	–	400	
h_{FE}	DC current gain	V_{CE} = –6 V; I_C = –150 mA	25	–	–	
V_{CEsat}	collector-emitter saturation voltage	I_C = –100 mA; I_B = –10 mA	–	–	–300	mV
V_{BEsat}	base-emitter saturation voltage	I_C = –100 mA; I_B = –10 mA	–	–	–1.1	V
C_c	collector capacitance	V_{CB} = –10 V; I_E = i_e = 0 A; f = 1 MHz	–	4	7	pF
f_T	transition frequency	V_{CB} = –10 V; I_C = –1 mA; f = 100 MHz	80	–	–	MHz
F	noise figure	V_{CE} = –5 V; I_C = –200 µA; R_S = 2 kΩ; f = 1 kHz; B = 200 Hz	–	–	10	dB

PACKAGE OUTLINE

Plastic single-ended leaded (through hole) package; 3 leads **SOT54**



DIMENSIONS (mm are the original dimensions)

UNIT	A	b	b_1	c	D	d	E	e	e_1	L	L_1 (1) max.
mm	5.2 5.0	0.48 0.40	0.66 0.55	0.45 0.38	4.8 4.4	1.7 1.4	4.2 3.6	2.54	1.27	14.5 12.7	2.5

Note

1. Terminal dimensions within this zone are uncontrolled to allow for flow of plastic and terminal irregularities.

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA			
SOT54		TO-92	SC-43A			~~97-02-28~~ 04-06-28

DATA SHEET STATUS

LEVEL	DATA SHEET STATUS(1)	PRODUCT STATUS(2)(3)	DEFINITION
I	Objective data	Development	This data sheet contains data from the objective specification for product development. Philips Semiconductors reserves the right to change the specification in any manner without notice.
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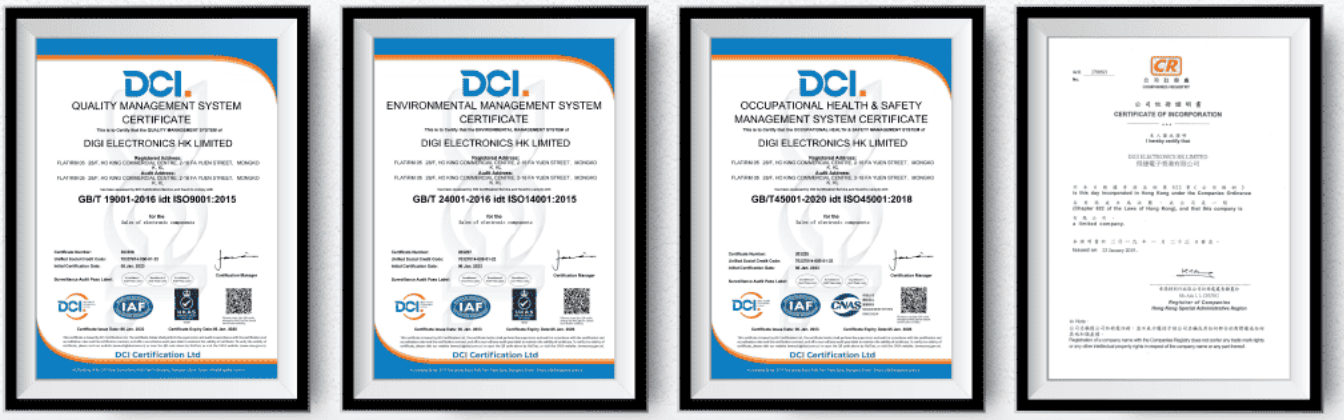

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